

PRESS RELEASE

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NTU Singapore unveils locally designed and built eVTOL aircraft at Singapore Airshow 2026

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Nanyang Technological University, Singapore (NTU Singapore) has unveiled Singapore's first locally designed and built full-sized aircraft, an advanced electric vertical take-off and landing (eVTOL) technology demonstrator.

This eight-metre wingspan homegrown aircraft prototype, developed over more than three years by researchers and engineers from NTU Singapore, marks a significant milestone in Singapore's aerospace research capabilities.

Eight lift rotors powered by NTU-designed electric motors are mounted on the wings to enable vertical take-off and landing from any confined space. Once airborne, the proprotor at the back quietly propels the aircraft forward, allowing it to fly like a normal airplane.

This design allows the aircraft to combine the aerodynamic efficiency of a conventional aeroplane with the hovering capability of a helicopter.

It was unveiled today at the Singapore Airshow 2026 by NTU Vice President (Industry) Professor Lam Khin Yong, together with other industry partners.

Professor Lam Khin Yong, NTU's Vice President (Industry), said the eVTOL programme underscores the importance of strong partnerships between universities, industry and government in building a sustainable aerospace ecosystem.

"Singapore has long been a regional leader in aerospace maintenance, repair and overhaul. This project represents an important step in strengthening our capabilities in the research and development of complete eVTOL aircraft configurations and the supporting technologies around them. I am very happy to see industry involved in this important project, which marks a milestone for Singapore in its aviation journey," he said.

“Through close collaboration with key local and international industry partners, this project brings together design, manufacturing, systems integration and testing expertise in one ecosystem. eVTOL technology has the potential to support future intracity and intercity mobility, particularly in Asia’s densely populated cities, where safe and well-designed aircraft will be critical for the movement of people and cargo.”

This research programme is led by Dr James Wang, a Professor at NTU’s School of Mechanical and Aerospace Engineering.

Prof Wang is a global pioneer in electric vertical flight and was named by WIRED Magazine as “the Steve Jobs of Rotorcraft”. He previously led the design of the AgustaWestland Project Zero, the world’s first all-electric VTOL technology demonstrator aircraft, which was showcased at the Paris Air Show in 2013.

Prof Wang said the ambitious project developed all the necessary core technologies for an eVTOL aircraft, where he oversaw the production and testing of multiple prototypes – including wing spans up to eight metres. This shows what Singapore can achieve through sustained investment in research and collaboration.

“If you can dream it, you can build it. This is a real opportunity for Singapore to establish itself as a key technology innovator, to claim the lead in the eVTOL space in Southeast Asia, and to show the world the depth of our academic and industry expertise,” he said.

The eVTOL research effort at NTU began about five years ago, when Prof Wang established the eVTOL Research and Innovation Centre to bring together expertise in aerospace engineering, materials and systems integration.

Professor Louis Phee, NTU’s Vice President (Innovation and Entrepreneurship), said it was a strategic decision to recruit Prof James Wang, an internationally recognised expert in helicopter and eVTOL aircraft design, given the University’s strengths in aerospace engineering.

“When we set up the NTU Centre for eVTOL research, our goal was to build end-to-end capability in Singapore. Working with leading aerospace industry partners, we sought to deepen our expertise in cutting-edge eVTOL technologies,” said Prof Phee.

“We hope that by developing a real, working prototype, this project will go the distance and be translated into Singapore’s first commercially available eVTOL, operating in our airspace and beyond.”

The NTU eVTOL project is supported by the Industry Alignment Fund – Pre-Positioning (IAF-PP) initiative under the Research, Innovation and Enterprise 2025 (RIE2025) plan.

Strong partnership with industry partners

The project was carried out in close collaboration with a network of local and international partners, bringing together expertise across aerospace systems, advanced materials, manufacturing and testing.

These include Eaton Aerospace, Syensqo, Luminator and Diab, for aircraft systems and materials, as well as DLR and AVL for research and flight test support.

Flight control, electrical components, and logistics support are provided by partners Embention, Volz, WingTeck, Bitec, BJO, and CEVA.

Admiralty and Flare Dynamics from Singapore supported manufacturing, integration and testing.

Agency for Science, Technology and Research (A*STAR) and Republic Polytechnic contributed composite technology, talent development and translational expertise.

"A*STAR is pleased to support NTU’s eVTOL programme by contributing our strengths in advanced manufacturing, simulation and design, and materials R&D. Together, we are building critical capabilities for Singapore’s longer-term ambitions in aerospace innovation and air mobility, laying the groundwork for future translation and industry partnerships,” said Professor Lim Keng Hui, Assistant Chief Executive, Science and Engineering Research Council (SERC), A*STAR.

Prof Wang further added that the eVTOL prototype will continue to serve as a research platform and the knowledge generated will help support Singapore’s longer-term ambitions in aerospace innovation and advanced air mobility.

Moving forward, NTU will work closely with industry partners to explore the commercialisation of key eVTOL technologies developed in the project, with the aim of developing a full-sized prototype capable of carrying people and cargo.